

## TITLE 327 WATER POLLUTION CONTROL BOARD

LSA Document #09-615

### SUMMARY/RESPONSE TO COMMENTS FROM THE THIRD COMMENT PERIOD

IDEM requested public comment from August 3, 2011, through September 2, 2011, on draft rule language as well as comments on the potential fiscal impacts of the rule. IDEM received comments from the following parties by the comment period deadline:

Kristin Whittington, Landmark Enterprises, LLC (KW)  
Janet Ecklebarger (JE)  
Lanee H. Dunbar, Citizens of Harrison County for Sustainable Farming (LD)  
Kathryn Petry (KP)  
Barbara Sha Cox (BSC)  
Robert and Leslie Patterson (RLP)  
Marjorie Vance (MV)  
Tim Maloney and Falon French for Hoosier Environmental Council *et al.* (TMFF)  
Daniel P. McNerny, Bose McKinney & Evans (DM)  
Jauneta Stout (JS)  
Livestock and Poultry Rule Revision Group (LPRRG)

Following is a summary of the comments received and IDEM's responses thereto.

*Comment:* There is value in providing industry consensus standards in the rule. Since standards are routinely updated, IDEM should maintain a repository for outdated standards that are not maintained elsewhere. (KW)

*Response:* IDEM agrees. All materials incorporated by reference in a rule are maintained in the permanent record of that rule as required by Indiana law. In addition, the Office of Land Quality maintains copies of all standards incorporated in the rule.

*Comment:* 327 IAC 19-2-44. The definition of "surface water" exceeds IDEM's authority to regulate exempt waters under IC 13-11-2-265. (KW)

*Response:* The term "waters" has a specific statutory definition found at IC 13-11-2-265. The term "surface water" is not derived from state statute but is used within the context of the CFO rule as an explanatory term to define setbacks, for example. Waters that are exempt under the state definition of "waters" may be otherwise regulated by IDEM in other programs. For example, the exempt isolated wetland is regulated and ponds used for pollution control are regulated under various IDEM permit programs. Therefore, where necessary to maintain water quality standards and protect Indiana's waters, IDEM can place restrictions on the proximity of certain activities to all sorts of waters, especially if there is or may be a hydraulic connection to other waters of the state. In addition, the definition of "surface water" is meant to distinguish it from groundwater, which is also a "water" within the statutory definition.

*Comment:* 327 IAC 19-3-1(a). Non-permitted discharges should seldom occur. Even with best management, incidents may occur that are outside the control of the producer, including events caused

by natural catastrophe and severe weather. IDEM should use discretion in taking action against a producer or farmer for things out of their control. (KW)

*Response:* A discharge to a water of the state is, on its face, a fairly straightforward concept. As to whether the discharge is someone's fault or is caused by something else out of the control of the operator is something that has to be determined in every situation wherein a discharge has occurred. Attempting to clarify through rule language would necessitate an exhaustive list of potential situations that would inevitably fall short of being complete and would not, therefore, serve to clarify what is considered a discharge. IDEM has enforcement discretion within all of its programs and reviews each incident on a case-by-case basis to determine what action is appropriate in each situation.

*Comment:* 327 IAC 19-4-1(c)(5). The requirement for certification by a registered professional engineer should only be used in special identifiable circumstances. This will be cost prohibitive to the producer and will not provide additional benefit over the construction oversight of IDEM personnel. (KW)

*Response:* This requirement would only apply to special situations that warranted additional protections beyond the norm.

*Comment:* 327 IAC 19-6-1. IDEM should provide six to nine months following the effective date for permitted operations to achieve compliance with the new rules. (KW)

*Response:* IDEM is considering including extended time-frames for compliance with some of the rule provisions, however, many of the provisions will become required upon the effective date of the rule. The rule will not become effective for approximately three months after it is final adopted.

*Comment:* 327 IAC 19-6-1(c) and (d). An operation should be considered in compliance and not require a new CFO approval regardless of a routine fluctuation in animal numbers up to 20 percent. (KW)

*Response:* IDEM has removed "animal number" from this provision. It now matches the language in IC 13-18-10-1.

*Comment:* 327 IAC 19-7-1(c)(6). Requiring test holes where solid manure will be stored on concrete pads above ground is not necessary and does not provide additional environmental protection. (KW)

*Response:* As all new manure storage facilities must be designed to maintain 180 days storage and there are specific requirements for the types of soils upon which solid manure storage facilities may be built, it is necessary to determine whether the types of soil the facilities are built on comply with rule requirements.

*Comment:* 327 IAC 19-7-1(c)(8). The individuals listed in IC 13-18-10-2 are the only parties who are potentially affected parties. (KW)

*Response:* The Indiana Administrative Orders and Procedures Act (IC 4-21.5) requires IDEM to provide notice of a permit decision to each person who has a substantial and direct proprietary interest in the permit. In order for IDEM to compile that list of interested parties the rule asks that the applicant provide a list of individuals that were provided notice under the requirements of IC 13-15-8 and IC 13-18-10-2. The statute as written requires that both portions of the statute apply to anyone applying for a permit as well as anyone applying for a CFO approval. There is nothing in the statute that indicates that the individuals identified represent a comprehensive list of potentially affected parties.

*Comment:* 327 IAC 19-7-1(c)(13). The commentor objects to the requirement that an application must include copies of all land use agreements, which are claimed to be proprietary business information. As long as the requirement of enough land application acreage is met and the CFO applicant certifies the information to be correct, there is no need for specifics on rented or leased ground to be submitted to the agency. (KW)

*Response:* Such information does not meet the definition of “trade secret” under IC 24-2-3-2, nor would such information be excepted from disclosure under the public records law at IC 5-14-3-4 or the confidentiality rules at 327 IAC 12.1.

*Comment:* 327 IAC 19-7-3(b). Because the rule requires the CFO owner to implement stormwater management practices but does not designate the types of practices that must be used, a prescriptive requirement to document diversions is unwarranted. The provision should be removed. Stormwater management issues should be addressed solely under 327 IAC 19-11. (KW)

*Response:* This is not a new requirement and has been required in the past under 327 IAC 16-7-9(b). Having this information on the Farmstead Plan helps in the development of storm water management practices.

*Comment:* 327 IAC 19-7-5(c). The corrected information required by this subsection is now consistent with the information provided on a standard soil test. (KW)

*Response:* IDEM has amended the language to require testing for phosphorus using a standard test method, the Mehlich 3 Extraction for Macro and Micro nutrients.

*Comment:* 327 IAC 19-7-6(b)(1)(A). The rule should be amended to require that a site be constructed and operated to minimize leachate rather than prevent it. Prevention is a difficult standard and the rule should recognize that is the case. (KW)

*Response:* IDEM agrees that it is difficult to prevent leachate. The intent of the requirement is to prevent movement of leachate through the base of the structure. The term will be changed from “leachate” to “leaching”.

*Comment:* 327 IAC 19-7-6(b)(1)(B). The provision should be removed since it is not a water quality issue. Disposal of dead animals is regulated by the Bureau of Animal Health which has similar requirements. (KW)

*Response:* Having animal carcasses removed from a contained area and deposited in the open environment can be both a public health and an environmental concern.

*Comment:* 327 IAC 19-9-1(b)(11). The requirement for justification of nitrogen losses can vary greatly based on time of year, application method and research information used. The justification should be acceptable if the producer indicates the source of the scientific information. (KW)

*Response:* IDEM agrees that providing the source of the scientific information would be beneficial in evaluating the justification of nitrogen loss.

*Comment:* 327 IAC 19-10. The conditions that may trigger groundwater monitoring are still unclear. These conditions should be clearly described in the rule. An alternative would be to develop guidance to explain this provision in more detail. (KW)

*Response:* Because every facility is unique in its design and geologic setting it is difficult to provide very much specificity in the rule. From a historical perspective less than 1% of the currently permitted CFOs and CAFOs have been required to establish ground water monitoring. The situations where monitoring has been required involved large earthen lagoons that were located in permeable soils, or in close proximity to an aquifer formation that was being utilized in the area. IDEM intends to expand upon the groundwater monitoring section in the updated guidance as well.

*Comment:* 327 IAC 19-10-1(b)(3). The fact that a groundwater monitoring test indicates one of the criteria listed does not mean that a manure storage structure is the source. Even an indicator that a pollutant is present does not mean that human health or the environment are in jeopardy or that corrective action needs to be taken. (KW)

*Response:* IDEM agrees with this statement and considers the purpose of the ground water monitoring to be an early warning system that triggers the need for further evaluation to identify the source of contamination.

*Comment:* 327 IAC 19-10-1(c). The rule as written does not provide for enough data to be statistically significant. Additional guidance is needed. (KW)

*Response:* Determining the most appropriate type of statistical testing is a function of the number of sample points available. IDEM will provide guidance on choosing statistical tests. Results of running the statistical test may dictate the need for re-sampling or additional testing and it is best that the farmer be in control of making those determinations.

*Comment:* 327 IAC 19-10-1(d). Test results should be submitted to IDEM within 60 days of receipt to determine if there is a statistically significant increase. (KW)

*Response:* The language of that subsection requires submittal within 60 days of sampling as stated in the comment.

*Comment:* 327 IAC 19-11-1(a). The term “storm water pollution prevention plan” is not used in 40 CFR 122.23(e) and will lead to confusion. The CFR reference includes all EPA requirements for managing stormwater. (KW)

*Response:* IDEM is amending this section to clarify the federal references.

*Comment:* 327 IAC 19-11-2(a)(3)(B). The reference to “disposal of significant materials” as part of the list of “type of materials handled at the site that potentially may be exposed to precipitation” is vague and open to interpretation by the reader. This provision should be in guidance, not the rule. (KW)

*Response:* The list within the rule includes things that should be considered when evaluating storm water management techniques. The specific reference above is within a list of materials that, when exposed to precipitation, may add pollutants to waters when the storm water run-off reaches Indiana’s waters. The rule must be read as a whole. Because each facility has different circumstances, the language of the rule must be broad enough to encompass all types of situations owners and operators may encounter. IDEM plans to include discussion of stormwater planning within the updated guidance as well.

*Comment:* 327 IAC 19-12-2(a)(4). The provisions for construction over mines should be similar those for construction in karst terrain. The prohibition of construction over mines is unwarranted, however

extra precautions are appropriate. At the least, facilities that have only dry manure or litter, such as poultry operations, should be allowed. The prohibition will greatly restrict the number and location of poultry facilities in southern Indiana. (KW)

*Response:* This is a long-standing restriction in the CFO rules. However, the alternate design section of the rule, 327 IAC 19-5-1 would allow innovative design approaches to be considered and possibly approved.

*Comment:* 327 IAC 19-12-3(b)(2)(A). This provision will be interpreted more broadly than intended. The definition of “surface waters” is too broad, and this provision proposes setbacks from surface waters regardless of their nature. While IDEM has stated that no one had tried to enforce a setback from a puddle, the opportunity exists under this language. While it may be far-fetched to suggest a setback from a puddle, it is not far-fetched to require setbacks from swales or private ponds that have no discharge to waters of the state. In those cases the setback should be three hundred feet as provided in 327 IAC 19-12-3(b)(2)(A). (KW)

*Response:* As this long-standing setback requirement to surface waters has never been interpreted to include puddles, IDEM believes this concern is not warranted. The setback is designed to protect Indiana’s waters, which are already sufficiently defined in rule and statute. See the response to the comment on the definition of “surface waters” in 327 IAC 19-2-42.

*Comment:* 327 IAC 19-12-4(d). The broadly applied, overly burdensome and costly requirement to have a professional engineer certify construction of all manure storage facilities should be removed. It is acceptable and logical for lined facilities but unnecessary for the majority of structures. The majority of structures are similarly constructed with predictable materials and do not require certification by a professional engineer, who would not agree to certify construction unless they were involved in the facility design. Since IDEM staff review these facilities, the additional cost of engineering certification is unnecessary. (KW)

*Response:* IDEM has amended the language to clarify that it applies to liquid manure storage structures and applies to those facilities approved after the effective date of the rule. However, IDEM believes that a certification of proper construction is essential in assuring that facilities are constructed as designed. IDEM does not have staff to inspect each manure storage facility before it is put into service and requiring facilities to wait for such an on-site inspection would prove more burdensome and costly to owners and operators. Because adherence to design and construction standards is vitally important in the proper operation of a CFO, IDEM believes this requirement is an important method to assure long-term environmental protection.

*Comment:* 327 IAC 19-12-4(g). This provision restricts the construction of solid manure storage facilities in sand or gravel soils, but the exclusion of liquid manure storage structures from the statement indicates that they may be constructed in sand or gravel soils. This provision should be clarified. (KW)

*Response:* Proposal of a liquid manure storage structure in sand or gravel would likely bring 317 IAC 19-4-1(c) into play as additional design and construction requirements would be needed to protect the environment. It is also possible that even for a solid manure storage facility that a design could be proposed under 327 IAC 19-5-1 Alternate Design, that would eliminate concerns with the porous soil type.

*Comment:* 327 IAC 19-12-4(o)(3). The requirement for a backup pump is unnecessary as long as the operator has access to a separate pump that can be used if the primary pump fails. (KW)

*Response:* A separate pump that can be used if the primary pump fails would be considered a backup pump that would satisfy the requirement.

*Comment:* 327 IAC 19-12-4(r). The requirement to notify IDEM upon completion of a waste storage structure should be by changing “shall” to “may”. The rule requires notice to IDEM prior to introduction of manure. It should not dictate how many notices a CFO submits. If the CFO chooses not to introduce manure into the storage structure, then multiple notices should not be required. (KW)

*Response:* A notice is required prior to the introduction of manure into the structure. Multiple notices would only be required if the owner/operator were constructing in stages and introducing manure into the finished portions of the structure prior to completing additional portions of the structure. The point is that IDEM must be notified prior to the introduction of manure into the structure and rather than require that the entire structure be complete prior to introduction, IDEM is attempting to allow phased in use of the structure so long as notice of completion is provided.

*Comment:* 327 IAC 19-13-1(e). The requirement for “clearly identified markers to indicate manure levels relative to the approved freeboard” is a good way to remind producers of their responsibility to maintain the appropriate freeboard. It would make more sense to place the marker on the terminal stage lagoon or the lagoon with the lowest cell walls. (KW)

*Response:* IDEM has experienced situations where hydraulic connections between cells were blocked and believe it is more prudent to identify the 2 foot freeboard level for all uncovered liquid manure storage facilities.

*Comment:* 327 IAC 19-14-3(d), Table 1. The table fails to allow for a demonstration of soil loss below the allowable “T” when the soil test level is between 200 and 300 ppm in year seven and beyond. This should be allowed so that producers can demonstrate that an application of phosphorus will still be protective of the environment. (KW)

*Response:* IDEM understands the concept of banking soil nutrients and site specific risk assessment. However, the USDA NRCS nutrient management conservation practice standard #590 prescribes that soil phosphorus levels beyond 200 ppm are unnecessary due to sufficient soil P levels for sustained crop production and the potential for soil P to be lost to soil erosion and possibly leaching. IDEM believes the seven year period is sufficient for farms to adjust their nutrient management practices and utilize fields with lower phosphorus levels.

*Comment:* 327 IAC 19-14-3(d), Table 2 (footnote). A statement should be added that allows for the land application of multiple years of phosphorus, to put the rule in line with common farming practice. (KW)

*Response:* IDEM acknowledges that banking of phosphorus has some environmental benefits as the manure may be spread on a fourth of the land area required if banking were not allowed. Therefore reducing air emissions from application equipment and reducing the surface area subject to runoff during rain events. In light of these benefits IDEM is open to additional consideration for allowance of some banking under the rule. The proposed CFO rule does allow producers to propose an alternative compliance approach to requirements within the rule. Documentation in on-site records, additional soil

testing or restrictions of banking to fields that meet a specific risk assessment are all considerations that may accompany an allowance for banking.

*Comment:* 327 IAC 19-14-4(c). There is often a need to temporarily hold used litter outside of a poultry house while cleaning it out between flocks. If transportation of the used litter is delayed, the litter may be held over for more than 24 hours. Since the operation cannot allow used litter to enter surface waters, that provision ensures environmental protection. (KW)

*Response:* The provision proposed indicated the litter should not be stored outside overnight. This provision is proposed to be replaced with an allowance to hold for not more than 24 hours. If a farm needs to routinely store outside for more than 24 hours it should only be allowed with other special provisions put into place to prevent a runoff event. Such a proposal could be made under the provisions of 327 IAC 19-5-1 Alternate Design. In no case should manure or contaminated materials be placed outside in inclement weather or during the threat of inclement weather.

*Comment:* 327 IAC 19-14-4(h)(3). Because the risk of manure runoff is minimal, CFOs should be allowed to (routinely?) apply manure to frozen or snow covered ground as long as they follow the guidelines in subdivision (h)(3). (KW)

*Response:* IDEM believes that sufficient flexibility has been built into the rule to allow operations to plan around the restrictions on winter-time spreading. An emergency provision as well as a case by case approval for operations with approved storage capacity of 120 days or less has been added to the draft rules to aid operations having difficulty meeting the requirements of the rule. In addition, language will be added that provides that manure that is incorporated the same day it is land applied is not considered application on frozen or snow-covered ground. In many situations, the ground may only have a light layer of snow or freezing that can be broken through to allow for incorporation into the soil.

*Comment:* 327 IAC 19-14-4(h). Facilities constructed under previous versions of the rule that do not have adequate storage capacity to make it through the winter without applying to frozen or snow covered ground should be grandfathered and allowed to make minimal applications to maintain adequate storage capacity. (KW)

*Response:* IDEM agrees that operations with approved storage of 120 days or less may have difficulty meeting the winter-time restrictions in the rule. IDEM will amend the language to allow the commissioner to approve land application on a case-by case basis for those operations not defined as large CAFOS that have less than 120 days of storage. The approval would be available as long as the farm continues to operate as permitted and does not cause a discharge of manure to waters of the State.

*Comment:* 327 IAC 19-14-4(l). The exclusion for pollution events caused by storm water or irrigation return flows should be identical to the language in HEA 1187 [P.L. 189-2011, Section 11; IC 13-18-4-5]. (KW)

*Response:* As HEA 1187 was in its formative stages when this draft of the rule was completed, IDEM intends to amend the rule to make it conform to the requirements of HEA 1187, which became effective on July 1 of this year.

*Comment:* 327 IAC 19-14-5(d). The requirement in subdivision (d)(2) to determine whether the NRCS soil data mart indicates a low potential for flooding is unnecessary since the requirements in subdivision (d)(3) take into account the expectation of flooding. (KW)

*Response:* IDEM believes that the unique nature of floodplains makes it especially important that spray irrigation be done in a manner that assures protection from potential flooding. To that end the NRCS soil data mart is a good tool to aid in that assessment.

*Comment:* 327 IAC 19-14-7(d). The only applicable certification is the fertilizer material applicator certification from the Office of the State Chemist. This subsection must be rewritten to clarify that only one certification is required, or to more clearly state what the required certifications are and where they are obtained. (KW)

*Response:* As written, the rule specifies that any certifications necessary from the OSC must be obtained. If only one certification is necessary then the parameters of the rule are met. The rule serves as a reminder that the office of state chemist regulates the application of fertilizer, including manure, onto the land in Indiana. Anyone applying fertilizer or manure should be aware of the requirements from the OSC and should read those requirements independently from this rule.

*Comment:* 327 IAC 19-14-7(f). Additional language should be clarified by amending the end of this provision to read "... during an on farm inspection." (KW)

*Response:* The referenced provision appeared at 327 IAC 19-14-7(g) in the proposed rule as published at 20110803-IR-327090615PRA. Since all CFO inspections are conducted at the facility, the proposed language would add redundancy to this provision.

*Comment:* Under the previous version of 327 IAC 15-16-13(a), there were provisions for CAFOs holding a general NPDES permit to transition to the CFO program in 327 IAC 19. With the repeal of [327 IAC 15-16] there is no longer an allowance for those CAFOs that meet the definition of a CFO to transfer out of the general NPDES permit program. The ability for these CAFOs to transfer to the CFO program and be regulated under 327 IAC 19 is a requirement that was passed down under recent case law. That ability is now not available for existing CAFOs. In order to allow CAFOs who do not discharge to change their permits to CFO and fall under the provisions of 327 IAC 19, a statement to that effect needs to be included in this rule. Guidance can then include the information on specifically how IDEM would like these operations to transfer over. (KW)

*Response:* IDEM has added transition language to the C AFO rule (LSA #09-213) which is going through the promulgation process at the same time as the CFO rule. IDEM proposes to send a transition form to each CAFO NPDES permit holder prior to the effective date of the new rules with which the permit holder can indicate whether the permit holder is transitioning into the state CFO program or seeking an individual CAFO NPDES permit.

*Comment:* I am extremely concerned that as the number of CAFOs in Indiana grows, there are only a limited number of IDEM agents that we have monitoring them, and considering state budget nowadays, are probably not going to increase in the near future. Your proposed new guidelines are not nearly stringent enough, especially in light of less monitoring. I am particularly concerned with your proposed setback distances proposed in Table 1. These are so lenient that you almost might not even have them. These should be tripled and then some. I also believe that stricter monitoring in the form of two year inspections instead of five years [is needed]. (JE)

*Response:* The setback distances in the CFO rules have been in place for a number of years and IDEM feels they have been successful in protecting the environment. Animal manure is a useful nutrient



for Indiana farm fields and a valuable resource for Indiana farmers, providing overly-restrictive setbacks would restrict use of the manure for this purpose, forcing the use of other chemical fertilizers in its place. The inability to use manure on fields would result in a build-up of the product in waste storage lagoons, increasing the probability of a catastrophic spill. As noted, in the comment, IDEM has limited resources for inspections which is why a great deal of self-monitoring is built into the rules.

*Comment:* I am particularly concerned with your proposed setback distances proposed in Table 1. These are so lenient that you almost might not even have them. These should be tripled and then some. I also believe that stricter monitoring in the form of two year inspections instead of five years [is needed]. (JE)

*Response:* The setback distances and application rates for spreading manure are based upon technical standards from Purdue University and USDA-NRCS.

*Comment:* 327 IAC 19-10-1. Change this section to require that all CAFOs located in karst terrain must monitor ground water. (LD)

*Response:* Groundwater monitoring is determined on a case-by-case basis. Facilities must consider the potential for environmental harm wherever they locate and design their facilities accordingly. IDEM believes that facilities that provide environmentally protective designs and operate in accordance with the law need not be required to engage in costly groundwater monitoring if there is no indication that the groundwater is being impacted by the facility.

*Comment:* 327 IAC 19-12-2. Remove subsection (b). These facilities should not be located in karst terrain because the ground is not conducive for these types of industrial operations. (LD)

*Response:* IDEM included specific requirements for facilities located in karst terrain to protect the terrain from environmental degradation. In individual cases, the commissioner has the ability to require more stringent design and operation requirements to protect the karst terrain. A full prohibition would be unnecessarily restrictive.

*Comment:* 327 IAC 19-12-3(b)(3). This setback should be changed from 100 feet to 1000 feet. One hundred feet is not enough setback for a neighboring property and will impair and impact that property. (LD)

*Response:* The setbacks within the rule have been in place for many years and IDEM believes they are sufficient to protect the environment and neighboring property from environmental harm.

*Comment:* 327 IAC 19-12-3. Add a new section that provides that a CAFO cannot be located within three miles of a public school. Children are required to attend schools and there is evidence of increased respiratory problems in children from CAFOs less than three miles away due to release of antibiotic resistant bacteria through the ventilation systems. (LD)

*Response:* The setbacks in the rules have been in place for many years and IDEM believes they are sufficient to protect human health.

*Comment:* Factory farms should be regulated like other industries that must comply with air pollution controls. (KP)

*Response:* This particular rule is a water quality rule. The Indiana legislature has enacted laws related to CFOs that have been put in place to protect Indiana's waters. Should the legislature

determine that air pollution requirements are necessary for such operations, additional statutory authority would be necessary for Indiana's Air Pollution Control Board to adopt such rules.

*Comment:* Setbacks from existing schools, churches, residences, towns and cities are inadequate and will result in disrupted activities. (KW)

*Response:* IDEM believes the setbacks are sufficient. The setbacks have been in place for a number of years and IDEM is unaware of "disruptions" to activities at churches, schools or cities and towns as a result of the setbacks.

*Comment:* Setbacks from creeks and rivers are not adequate and will result in spills, risk of illness to residents and fish kills. (KW)

*Response:* This rule is protective of Indiana's waters. Spills are required to be contained and remediated and reported to the Spill Line should such spill reach a water of the state. Under no circumstances are fish kills allowed by these or other industries.

*Comment:* Allowing units to be built in areas with underground caves, waterways, and karst terrain is irresponsible. (KW)

*Response:* IDEM included specific requirements for facilities located in karst terrain to protect the terrain from environmental degradation. In individual cases, the commissioner has the ability to require more stringent design and operation requirements to protect the karst terrain. A full prohibition would be unnecessarily restrictive.

*Comment:* Allowing spraying of manure is irresponsible. Manure will end up on vehicles, homes, roads and wherever the wind takes it. (KW)

*Response:* There are specific requirements for spray irrigation within the rules, including the requirement to the irrigation be under the constant supervision of a person. Additionally, the setbacks that apply for all manure application apply to spray irrigation of manure to prevent the overspray mentioned by the commenter.

*Comment:* When it rains and the pits are emptied the pollution goes into the waterways. We are told the farm could not help it since the pit was full. This will result in more contamination to drinking water. (KW)

*Response:* Pits are required to maintain a minimum amount of freeboard to account for rainfall situations. Owners and operators are required to manage the storage of manure to maintain the extra space for the containment of such rainfall events. Additionally, owners and operators are required to develop and maintain an emergency response plan to contain any manure release to prevent it from reaching waters of the state.

*Comment:* Manure application sites for the previous year should be required to be submitted with the annual report. (BSC)

*Response:* Annual reports are not required to be submitted under the rules, nor does IDEM believe such reports would provide additional environmental benefit.

*Comment:* The NRCS setbacks are not sufficient for waste management systems from property lines and public roads. Schools need special setbacks. (BSC)

*Response:* IDEM believes the setbacks are sufficient.

*Comment:* Setbacks from property lines and residences are not sufficient. Setbacks do not address the issues of public health, pathogens, and rights of property owners. There are states that have more stringent setbacks. IDEM should review those greater setbacks. (BSC)

*Response:* IDEM believes the setbacks are sufficient.

*Comment:* Renewal permits should not be issued until an inspection of the facility is done to verify there is enough storage for manure. This would prevent the need to spread on frozen ground. (BSC)

*Response:* There is no requirement in the rule that a facility must have a specific amount of storage space available in a storage unit at any particular time. The restrictions relative to frozen ground application and maintaining 2 foot freeboard are intended to promote good storage management practices.

*Comment:* The rule language needs to be clarified. When building or any construction, an active working tile cannot be blocked. The rule should require that the tile must be rerouted and not obstruct the flow of water. (BSC)

*Response:* The decision to block or reroute a tile should be based on whether the tile is actively serving a necessary drainage purpose. It is not unusual to encounter tiles that are plugged with sediment and have not been properly functioning and they are no longer needed due to other drainage changes that have occurred over time. Rerouting of such a tile would not be necessary.

*Comment:* There should be at least a two mile setback from lakes, reservoirs, rivers, state recreational land, public water supplies, schools, churches, hospitals and towns. The setback from homes and streams needs to be at least one mile. (RLP)

*Response:* IDEM believes the setbacks are sufficient. Such large setbacks would unnecessarily restrict the use of a valuable nutrient resource for crops and limit the ability of farms to reuse the manure in a way that is beneficial to crops. Farmers would be required to use chemical fertilizers instead, which do not have the same setback restrictions.

*Comment:* There should be no application of manure onto frozen or snow-covered ground. (RLP 2)

*Response:* Application of manure on frozen or snow covered ground is severely restricted and only allowed under very specific circumstances.

*Comment:* Best management practices should be used to reduce or eliminate pathogens in manure before it is land-applied. (LRP)

*Response:* IDEM always encourages the use of best management practices.

*Comment:* There should be no siting of livestock operations or application of manure in sensitive environmental areas such as karst terrain and flood plains. (LRP)

*Response:* Sensitive areas are highlighted in the rules as areas which may require additional design, construction or operational steps be taken to protect the environment. Prohibition in such large areas of the state would be unduly restrictive and create economic hardships for many areas in Indiana.

*Comment:* There should be knife-in vs. aerial spray of liquid effluent. (LRP)

*Response:* It is unclear what the commenter is requesting. All manure must be applied at an agronomic rate and spray irrigation must be conducted in such a way that the ground upon which the spray irrigation is taking place can physically absorb the spray irrigation product.

*Comment:* Chicken manure must be covered in 24 hours after spreading and can't be done in winds above 10 miles per hour if neighbors exist within one mile. (LRP)

*Response:* While provisions in the rule provide incentives for incorporation of manure there is no requirement that incorporation be used as such a requirement would be counter to no-till management practices that are encouraged to minimize erosion concerns.

*Comment:* A bond for financial responsibility should be posted by all CAFOs and CFOs. (LRP)

*Response:* IDEM does not have the authority to require financial responsibility bonds for CFOs or CAFOs.

*Comment:* We recommend that there be an annual animal feeding operation fee which will be used to support the cost of local monitoring of the operations by the health department. (LRP)

*Response:* Fees under this program are set by the Indiana legislature.

*Comment:* Penalties should be much higher for offenses after the first, especially if found to be intentional. The penalties shouldn't be small enough that they just consider them as a cost of doing business. (LRP)

*Response:* IDEM's penalty matrix takes into account such factors as intent when assessing penalties.

*Comment:* I do not see sufficient setbacks being considered for schools. There are known documented dangers from chemicals in the manure. Our school children do not need to be subjected to them. (MV)

*Response:* IDEM believes that other existing setback requirements are adequate to minimize the potential for exposure of children or adults to manure that is land applied.

*Comment:* The type of soil suitable for building a CAFO should be a top priority. Karst is definitely not a good choice and should be eliminated. How can sink holes, ravines and underground streams be a good building place? (MV)

*Response:* IDEM has built additional design and construction requirements into the rules for such areas. Additionally, the commissioner may, on a case-by-case basis, impose additional requirements to protect the environment.

*Comment:* Field tile must not be blocked in the building process. Why do we have field tile? On our farm it is for proper drainage. (MV)

*Response:* The decision to block or reroute a tile should be based on whether the tile is actively serving a necessary drainage purpose. It is not unusual to encounter tiles that are plugged with sediment and have not been properly functioning and they are no longer needed due to other drainage changes that have occurred over time. Rerouting of such a tile would not be necessary.

*Comment:* Self inspection simply does not work with CAFO farmers. Anyone can write anything. We need more inspection enforcement. It does no good to have rules in force when they are not enforced. (MV)

*Response:* As with all regulatory programs, IDEM cannot be watching every regulated entity every day of operation. Self monitoring and inspection requirements are necessary. Violators are held accountable for their violations. IDEM believes that working with responsible owners and operators and

engaging in education of the regulated community is an effective tool in maintaining protection of Indiana's environment.

*Comment:* We see manure being hauled on frozen ground each winter. This practice must be stopped. Many will do it, pay a fine, and continue the process. (MV)

*Response:* Land application on frozen and snow-covered ground is severely restricted under the rules. It is allowed only in certain limited circumstances.

*Comment:* 327 IAC 19-12-3. Setbacks to waste management systems. These setbacks are insufficient to protect public health and water quality. There is precedent in Indiana for stronger setbacks. Twenty-eight counties have adopted local health and/or zoning ordinances to address manure storage and distribution. IDEM should adopt setbacks comparable to those in the St. Joseph County Setbacks Ordinance (Ordinance No. 22-07). The commentor recommends the following minimum setbacks from water features for waste management systems:

- (1) 327 IAC 1901203(b)(1): 1,500 feet from a public water supply well or public water supply surface intake structure.
- (2) 327 IAC 19-12-3(b)(2): 500 feet from surface waters of the state, drainage inlets including water and sediment control basins, sinkholes, as measured from the surficial opening or lowest point of the feature, and off-site water wells.
- (3) 500 feet from the features described in 327 IAC 19-12-3(b)(2) for manure storage facilities that contain solids.

The commentor provided a copy of the St. Joseph County Setbacks Ordinance. (TMFF)

*Response:* IDEM believes the setbacks are sufficiently protective of the environment.

*Comment:* 327 IAC 19-14-6. In addition to insufficient setback there is a complete lack of setbacks for homes and residences, schools, churches, public buildings, businesses and parks. When manure is staged and applied, particularly in very windy conditions, manure particles and odors will blow off the fields and potentially contaminate any home, school or hospital downwind of the manure application site. Outdoor use areas or structures such as picnic areas and playgrounds may be contaminated with pathogens found in manure. The commentor recommends that the setbacks for land application of manure be the same as the recommended setbacks for manure storage facilities. (TMFF)

*Response:* IDEM believes the setbacks are sufficient.

*Comment:* 327 IAC 19-14-4. The setbacks for staged manure should be the same as for land application of manure. (TMFF)

*Response:* IDEM believes the setbacks are sufficient.

*Comment:* 327 IAC 19-12-2. CFO waste management systems and land application should not be allowed in one hundred year flood plains. These areas experience regular flooding and are subject to an increasing number of extreme flood events. The two foot freeboard requirement will not be sufficient to prevent infiltration of flood waters and resulting overflows at these facilities. (TMFF)

*Response:* The proposed rule does not allow construction in a floodway which is the active area of flow of water during a flood. Protection of storage facilities by a structure that extends 2 feet above the 100 year flood plain, which contains static water should be adequate to prevent breaching by floodwaters.

*Comment:* 327 IAC 19-12-2. CFO waste management systems and land application should not be allowed in karst terrain. Karst aquifers are extremely complex systems and are highly vulnerable to contamination. IDEM already prohibits new waste management facilities in karst areas (329 IAC 10-16-8(b)). If IDEM maintains the proposed rule language, then adequate groundwater monitoring must be required for these facilities. Such monitoring would allow IDEM to determine if siting in karst terrain is acceptable. Since monitoring is not required for existing CAFOs and CFOs in karst terrain, IDEM cannot assure these operations are protective of water resources. Since boring is not the best way to characterize the hydrology of karst terrains, if IDEM allows construction in karst areas, it must require more extensive characterization, including drinking water wells or intakes that may be affected by contamination from the facility. Setbacks from sinkholes, swallowholes, caves, rises and springs must be increased to 1,500 feet. In 327 IAC 19-12-2(b)(2), design and construction specifications must demonstrate that waste management systems will not be damaged by subsidence typical of karst regions. (TMFF)

*Response:* IDEM's siting restrictions in karst, for confined feeding operations, mirror the requirements of USDA-NRCS, not the prohibitions contained in 329 IAC 10-16-8(b) for solid waste disposal facilities. The proposed rule language matches language contained in 327 IAC 16 currently. Provisions within 327 IAC 19 continue to require additional site specific information be submitted to IDEM with applications for new waste storages proposed in karst. Additionally, if deemed necessary by IDEM based upon the submitted application materials, 327 IAC 19-4-1(c) allows IDEM to request alternate design standards and operational requirements.

*Comment:* 327 IAC 19-7-5. A representative soil sample should be taken for every 1 to 2.5 acres rather than 20 acres as currently proposed, as recommended by University of Iowa and Iowa State University. The commentor provided guidance documents from the universities. (TMFF)

*Response:* The 20 acre representative soil sample is a minimum requirement based upon Purdue University and USDA-NRCS recommendations reflecting current farm and field management techniques and protocols. Field management can be based upon an intensive grid method regime as noted, but acceptable alternatives can include sampling fields based upon soil types and management units. Many smaller samples can be collected and averaged, but may not represent greater than a 20 acre area. Considerations for land application method, achievable real-world rate variations, and mapping must be included.

*Comment:* 327 IAC 19-7-5. Soil testing should be required every year as specified in best management practices, rather than every 4 years as currently proposed. This will be necessary as farmers begin to implement the new phosphorus-based manure application rates. (TMFF)

*Response:* Current federal regulations require soil testing of land application areas once every 5 years for CAFOs participating in the NPDES permitting program. Although 327 IAC 16 requires soil testing once every 3 years of land application areas, 327 IAC 19 has been modified to allow soil testing once every 4 years to more accurately reflect current farm management testing frequencies based on cropping rotation practices and still maintain a more frequent sampling schedule than required by federal law for CAFOs.

*Comment:* 327 IAC 19-7-5. The rule should include stronger requirements to prevent pathogens in manure from entering waters or the environment. The current limitations to minimize pathogen contamination are insufficient and leave out many best practices available to reduce or eliminate pathogens. The rule should reference the University of Minnesota Extension's "Best Management Practices for Pathogen Control in Manure Management Systems." These best management practices should be required in the manure management plan. (TMFF)

*Response:* There are currently no pathogen related standards within the federal regulations for animal feeding operations and the manure management plan required by IC 13-18-10-2.3 does not require best management practices regarding pathogen reduction. The manure management practices related to land application of manure in 327 IAC 19-14 serve to prevent pathogens in manure from entering waters.

*Comment:* 327 IAC 19-14-2. CFO operators should be required to annually report and certify land applications of CFO manure, and these annual reports should be made available to the public. The rules should require CFOs to submit any changes or additions to the land use agreements required with the application under 327 IAC 19-7-1(c)(13). Requiring changes to be kept only in the operating record at the CFO prevents the public and the Office of Water Quality from accessing this important information. (TMFF)

*Response:* IDEM inspectors are not prevented from reviewing information in the operating record. IDEM does not believe there is additional environmental benefit to be gained from requiring the submission of annual reports.

*Comment:* 327 IAC 19-14-4. The rule should not allow for application of manure on frozen or snow-covered ground under any circumstances. If an emergency arises, IDEM should require an emergency plan that does not place water quality in jeopardy or risk a manure discharge. An emergency plan similar to that used for the defunct Muncie Sow Unit that required shipment of the manure to a proper waste treatment facility rather than land application should be established. (TMFF)

*Response:* IDEM concurs, except in very limited situations. IDEM believes proper planning will in most cases alleviate the need to apply to snow-covered or frozen ground. However, IDEM is aware that issues and emergencies can arise and has built a contingency into the rule to allow for such application on a very limited basis.

*Comment:* 327 IAC 19-14-4. If IDEM chooses to allow land application on frozen ground, CFO owners must be required to submit a plan, including a reasonable timeline, to build greater storage capacity or find another way to avoid the necessity of land applying on frozen or snow-covered ground in the future. The reasonable timeline should coincide with permit renewal except in cases of extreme financial hardship. If an exemption is granted, surface water monitoring should be required to ensure that the application has not caused a water quality violation. (TMFF)

*Response:* IDEM has revised the language pertaining to land application on snow-covered or frozen ground to allow for it only very limited circumstances with specific restrictions on time and the type of land that may be used.

*Comment:* 327 IAC 19-8-7(a). Because of the substantial public interest in permitting and operating CFOs and their potential for adverse impacts, the CFO review and approval process must be transparent.

The rule should include robust public notice and public comment procedures, including requiring applicants to notify owners and occupants of land one-half mile or less from potential manure application sites as indicated by land use agreements. (TMFF)

*Response:* The rule cannot conflict with the statutory requirements and therefore duplicates the language that has been established by the legislature relative to public notice provisions.

*Comment:* 327 IAC 19-8-7(b). The rule should require IDEM to:

- (1) Provide public notice of receipt of an application and corresponding comment periods for CFO applications in newspapers and the IDEM website.
- (2) Accept written comments up to 33 days from posting notice of receipt on the website, not from the date of the applicant's mailing of notices to landowners and occupants.
- (3) Receive verification from the applicant that notices to landowners and occupants have been mailed before initiating the comment period.
- (4) Offer any watershed organization operating under a 319 grant an opportunity to request a meeting and comment on behalf of members and community residents who use public waterways. (TMFF)

*Response:* IDEM believes that the proposed notice requirements provide adequate public notice and IDEM does take into account the amount of interest and the specific environmental related issues surrounding a proposed facility in deciding whether to hold a public meeting.

*Comment:* 327 IAC 19-8-7(c). Any application should trigger a mandatory public meeting that follows a prescribed format and allows for public comment. At the very least, IDEM should be required to hold a public meeting if requested by at least 25 persons living or working within 15 miles of the proposed new or expanded CFO or within the 10-digit watershed of the proposed site or any other 10-digit watershed within which the applicant has land use agreements for manure application, similar to the draft antidegradation rule. (TMFF)

*Response:* IDEM believes that the proposed notice requirements provide adequate public notice and IDEM does take into account the amount of interest and the specific environmental related issues surrounding a proposed facility in deciding whether to hold a public meeting.

*Comment:* 327 IAC 19-9-1. The entire operating record, including the manure management plan, storm water management certification, land application records, maps, and all other required materials, should be made available to the public and uploaded to the Virtual File Cabinet. (TMFF)

*Response:* IDEM believes the operating record is a dynamic document that is subject to frequent updating and is most appropriately maintained on the farm site. On-site, it is available for inspectors to review during farm inspections to assure that such records are up-to-date and actually comport with ongoing activities at the facility.

*Comment:* All commercial dairies should be subject to regulation under this rule, including all commercial dairies of 50 head or more. It is arbitrary and fundamentally unfair to subject only large dairies to these rules, while allowing other operations to go unregulated. (DM)

*Response:* The statute establishes the number of animals that may be regulated under the rules and does not provide authority to IDEM to regulate smaller farms.



*Comment:* 327 IAC 19-14-3(d). The phosphorus rule should be deleted. IDEM is under no mandate to regulate manure application under a phosphorus standard. There are two existing mechanisms in Indiana to address phosphorus issues: The Office of the Indiana State Chemist and IDEM's Watershed Planning Branch. There is no need to create a third mechanism to regulate phosphorus. (DM)

*Response:* IDEM disagrees that the phosphorus rule should be eliminated. It is an important tool to alleviate environmental harm caused by migration of nutrients into the state's waters. IDEM's rules are consistent with rules developed by the Indiana OSC.

*Comment:* 327 IAC 19-14-3(d). The provisions regarding land application of phosphorus do not treat CFOs and CAFOs equally. CFOs are given a phase-in period, CAFOs are not. Compliance with this rule is more burdensome and inflexible than compliance with the existing NRCS 590 standard; therefore all regulated operations should be allowed a phase-in period. (DM)

*Response:* IDEM has added a provision to allow CAFOs approved for initial construction before February 13, 2003 to utilize the phase-in schedule provided to CFOs. CAFOs approved for initial construction on, or after February 13, 2003, were already subject to limitations based on phosphorus.

*Comment:* 327 IAC 19-14-3(d). There is no flexibility in the proposed application tables. A producer should have the ability to make a site specific demonstration that an alternate phosphorus number would be equally protective of the environment. (DM)

*Response:* Neither the current CAFO rule nor the proposed CFO rule specify an allowance for site risk considerations in determining the application of phosphorus to a field with high phosphorus levels. A footnote has been added under Table 2 stating that multiple years of phosphorus may be applied with maximum loading limitations. The proposed rule also allows CFOs to propose an alternative compliance approach to requirements within the rule.

*Comment:* 327 IAC 19-14-4(e)–(i). Both the existing CFO rule (at 327 IAC 16-10-3) and CAFO rule (at 327 IAC 15-15-14) allow manure application on frozen or snow covered ground subject to specific conditions. IDEM has no supportable basis to abandon the existing provisions and create a blanket prohibition on frozen ground application. The proposed rule is arbitrary and unfair because it allows CFOs to land apply on frozen ground in emergencies (under certain conditions substantially similar to the existing frozen ground application requirements), but CAFOs are prohibited from applying on frozen ground under any conditions. The rule should be revised to allow land application on frozen or snow covered ground in accordance with existing CFO rule conditions. (DM)

*Response:* The federal CAFO rule specifically prohibits land application of snow-covered or frozen ground. EPA has indicated that any such application would be deemed a discharge such that any operation that meets the definition of a CAFO under the federal rule would need a NPDES permit. The CFO rules acknowledge this requirement and state that any federally-defined CAFO not seeking an individual NPDES permit may not land apply on such ground. This is consistent with the federal rule and is not arbitrary. The rules have been amended to allow for the land application on snow-covered or frozen ground in very limited circumstances.

*Comment:* 327 IAC 19-10-1. This rule, as currently written, should be deleted. A fundamental principle of rulemaking is that a rule must establish ascertainable standards. As drafted, it is impossible for a producer to know when ground water monitoring may be required. Likewise, it is impossible to

determine how the data required to be gathered will be interpreted, when corrective action may be required by IDEM, and what such corrective action may entail. Certain parameters are required to be sampled for, which will not even be utilized by IDEM. The rule is impermissibly vague, and should be deleted until such time as it is redrafted so as to provide ascertainable standards to the regulated community. (DM)

*Response:* The groundwater monitoring section has been amended to include an appealable decision by the commissioner on whether groundwater monitoring shall be required. Currently, only a very small number of operations are required to engage in groundwater monitoring within the state. The rule allows for those individuals that are required to monitor groundwater to write a plan as to how that will be done. Each farm is different and a rule cannot be so specific to take every circumstance into account, hence the ability for an owner or operator to tailor a plan to his or her specific farm. Groundwater is a water of the state as per the statutory definition and therefore under IDEM's jurisdiction. Groundwater contamination is a very serious concern not just for this type of industry but for all industries, as groundwater is a significant source of drinking water within the state. Because IDEM has the authority to regulate it, but understands the expense and difficulty of engaging in groundwater monitoring, IDEM wants to review each location upon which a CFO approval is sought to determine the likelihood that the locations of manure storage facilities may impact groundwater. Design standards can be strengthened to eliminate the need for such monitoring or a more appropriate place for the manure storage structure can be found. The expense of monitoring pales in comparison to the expense of groundwater remediation. Thus IDEM believes it is important for all facilities subject to these regulations be aware that groundwater monitoring may be a possibility based on a number of factors listed in the rules.

*Comment:* The setbacks are not sufficient for storage facilities or application. There is no consideration for the pathogens in the manure or any other potential health hazard both in the air and water. When manure is applied too frequently or in too large a quantity to an area, nutrients overwhelm the absorptive capacity of the soil and either run off or are leached into the groundwater. Handling the large amounts of manure inevitably causes accidental releases which have the ability to potentially impact humans. (JS)

*Response:* IDEM believes the setbacks are sufficient.

The following comments of the Livestock and Poultry Rule Revision Group that were submitted at the first public hearing were resubmitted as comments on the proposed rule.

### **Guidance Documents**

*Comment:* Guidance documents will be needed to explain many of the provisions in this rule: ground water monitoring, manure sampling and analysis, soil sampling, analysis and interpretation, inspection and record-keeping, and storm water management practices. We are opposed to final adoption of this rule before development of needed guidance. (LPRRG)

*Response:* A CFO Guidance Manual issued by IDEM already exists for most of these topics and IDEM will be reviewing and revising the document prior to the rules becoming effective. Such revision is difficult until the Rule is final adopted and we know for certain what the requirements will be.

### **Technical Standards**

*Comment:* While there is value in providing standards that are available and well tested, these standards are routinely updated, while the rule refers to specific versions. IDEM should maintain a repository for the specific document versions specified in the rule. (LPRRG)

*Response:* IDEM must assemble a complete package for the rulemaking process that will include a copy of each standard referenced in the rule. We will explore the option of providing the free references on an internet site and a link to other sites for references that are copyrighted and must be purchased.

## **Definitions**

*Comment:* The term “waste” appears repeatedly in definitions and other provisions of this rule. We agree that materials not used for land application or other nutrient production are waste materials, but we assert that byproducts of livestock production do have value and are not treated as wastes. This rule restricts the ability to treat manure as waste and requires that it be utilized as a nutrient source or for other beneficial use such as energy production. “Waste” is not an appropriate term. (LPRRG)

*Response:* The two primary ways in which the term waste is utilized in the rule is in referencing “waste liquids”, which is a term that will be deleted from the rule because its meaning has been incorporated into the definition of “manure” by the legislature, and referencing “waste management system”. Waste management system is a term that has been in common use under the existing rule and primarily refers to animal waste. We agree that properly applied or treated animal waste does have value however the term waste as used in the rule is primarily viewed from the perspective of the animal producing it, which has no further use for the excreta.

*Comment:* The term “manure release” is used but not defined. The term should be defined to ensure that farmers and IDEM interpret it in an identical manner. In 327 IAC 19-13-4, both “manure release” and “spill” are used to identify events that can be interpreted to be the same. Because both terms are used, we assume that they refer to different events. (LPRRG)

*Response:* The intention was to use the term “manure release” to refer to manure that has escaped from a storage structure or piece of equipment but has not yet reached a water of the state. Once a manure release reaches a water of the state it would be considered to be a “spill”.

*Comment:* 327 IAC 19-2-8 “Contaminated runoff”. We are still concerned about the meaning of “contaminated runoff,” especially because of information from EPA. Because this rule will be enforced solely by IDEM, we need clarification on how IDEM will interpret this provision for CFOs. (LPRRG)

*Response:* It is not clear what aspect of the definition needs clarification. Its application is to rain or surface water that comes in contact with the new definition of manure at the production area, including roads leading up to the production area.

*Comment:* 327 IAC 19-2-23 “Manure”. The definition of “manure” is not identical to the definition in House Enrolled Act 1187, effective on July 1, 2011 (IC 13-11-2-126.5). Rather than a complete definition of manure, the definition in the proposed rule refers to the definition of “waste liquid.” For clarity, the definition of manure should be identical to HEA 1187 and “waste liquid” should be defined separately. (LPRRG)

*Response:* The statute has incorporated the items that were considered a “waste liquid” into the definition of “manure” so the term “waste liquid” will be deleted from the rule and the definition of “manure” will be revised to agree with the statute.

*Comment:* 327 IAC 19-2-29 “Owner/operator”. While we appreciate IDEM’s response to our earlier comment on this definition, we cannot agree on the meaning of this term and its purpose. This term should be clarified. (LPRRG)

*Response:* It is not clear from the comment what type of clarification is needed.

*Comment:* 327 IAC 19-2-40 “Staging”. The phrase “at the site where the manure will be land applied” should be clarified. A farmer may find the best practice to be to create one staging area for manure which is to be applied to several fields on different parcels. We believe this definition will not restrict that activity, but the definition should make it clear that activity will be allowed. (LPRRG)

*Response:* IDEM agrees that the definition would not restrict the activity described. We do not feel the language needs to be changed.

*Comment:* 327 IAC 19-2-42 “Surface water” and 327 IAC 19-2-47 “Waters”. The definition of surface water is broader than permissible under the definition of “waters.” “Waters” as defined in statute (IC 13-11-2-265) includes both surface and underground water accumulations, but specifically excludes private ponds, off-stream ponds, reservoirs, and facilities built for reduction or control of pollution or cooling water prior to discharge. “Surface waters” appears to be a subset of “waters” and specifically includes ponds. Including water bodies excluded under IC 13-11-2-265 in the definition of surface water is not legally allowable unless an actual discharge from the exempt feature would cause pollution of a regulated water, or where separate statutory authority exists. (LPRRG)

*Response:* This is a long-standing definition, the primary purpose of which was to draw a distinction between surface waters and ground water, especially in relation to setbacks. IDEM has never interpreted the definition of surface waters to extend beyond the statutory definition of waters. However, if a private pond has a hydraulic connection to any water of the state and a discharge into the private pond leads to a discharge to a regulated water, IDEM can certainly enforce against such a violation. We will change the references to “surface water” and “surface waters of the state” to eliminate the confusion.

## **Performance Standards**

*Comment:* 327 IAC 19-3-1(a). We agree that CFOs should be managed to avoid unpermitted discharges to waters of the state. As long as the rule is followed, unpermitted discharges should seldom occur. While best management can be used on a farm, incidents may occur that are outside the farmer’s control, such as natural catastrophes and severe weather. IDEM should use discretion in taking action against farmers for things beyond their control. (LPRRG)

*Response:* Such considerations are normally made in determining whether an enforcement action will be taken.

*Comment:* 327 IAC 19-3-1(e). We are concerned with the requirement that manure be staged or applied in a manner to prevent runoff or ponding for more than 24 hours. These may still occur even if the farmer takes all possible actions. The requirement should be amended to state that runoff and ponding should be minimized. (LPRRG)

*Response:* IDEM will consider making revisions to those requirements.

*Comment:* 327 IAC 19-3-1(e). This subsection should be clarified with respect to “staged or applied at the CFO.” Use of the term “CFO” means the livestock or poultry production area. We believe the term is being used to refer to fields for land application under the control of the CFO owner. The sentence should be revised to read: “staged or applied on land under control of the CFO owner/operator must...” (LPRRG)

*Response:* IDEM agrees with the interpretation and will make a revision.

### **General Approval Conditions**

*Comment:* 327 IAC 19-4-1(c)(5). This adds a requirement for certification by a registered professional engineer if the commissioner determines it to be necessary. This should not be required as a matter of normal practice. There should be identifiable circumstances that trigger the requirement. Use of a registered professional engineer can greatly increase the cost to the producer without providing additional benefit over that provided by the construction oversight of IDEM personnel. (LPRRG)

*Response:* This requirement would only apply to special situations that warranted additional protections beyond the norm.

### **Alternate Design or Compliance Approach: Innovative Technology**

*Comment:* 327 IAC 19-5-1. We support provisions allowing for design or compliance approaches different from those in the rule. We urge the agency to allow for alternative design and compliance approaches that are different than those agency staff is familiar with or which are described in the rule. (LPRRG)

*Response:* If the alternative can be demonstrated to provide an equivalent level of protection it will be given serious consideration.

### **Existing Confined Feeding Operations**

*Comment:* 327 IAC 19-6-1. We previously indicated concern that it may be difficult for existing operations to make changes before the effective date of the rule. IDEM acknowledged that there would be three months between final adoption of the rule and its effective date. While this may be sufficient for operations to make changes if they receive immediate notice of the new requirements, IDEM should be flexible in working with operations to achieve compliance with the new rules in a cordial and timely manner. (LPRRG)

*Response:* IDEM has demonstrated flexibility in the past as new rule requirements came into effect and it was acknowledged that understanding the new requirements would take some time.

### **Application Requirements**

*Comment:* 327 IAC 19-7-1(a). “CFO” should be plural. (LPRRG)

*Response:* IDEM agrees and will make the change.

*Comment:* 327 IAC 19-7-1(c)(8). The list of potentially affected parties was developed based on IC 13-18-10-2 and IC 13-15-8. IC 13-18-10-2 refers to the specific notice requirements that the General Assembly created for CFOs. IC 13-15-8 refers to providing notice more generally for permits issued under IC 13-15. The intent of the General Assembly is clear and the group of individuals listed in IC 13-18-10-2 are the only parties who are potentially affected parties. (LPRRG)

*Response:* The Indiana Administrative Orders and Procedures Act (IC 4-21.5) requires IDEM to provide notice of a permit decision to each person who has a substantial and direct proprietary interest in the permit. In order for IDEM to compile that list of interested parties the rule asks that the applicant provide a list of individuals that were provided notice under the requirements of IC 13-15-8 and IC 13-18-10-2. The statute as written requires that both portions of the statute apply to anyone applying for a permit as well as anyone applying for a CFO approval.

*Comment:* 327 IAC 19-7-1(d). The requirement that expanding CFOs must certify that there is sufficient acreage for land application should reference 327 IAC 19-14-2(c) that allows for a demonstration that less acreage can be used. (LPRRG)

*Response:* IDEM agrees and will make a revision to the rule.

*Comment:* 327 IAC 19-7-1(e). This subsection contains several reasons for which the commissioner may deny an approval application. An application may also be denied under 327 IAC 19-8-4. All conditions for denial should be listed in 327 IAC 19-8-4 which deals with denials. (LPRRG)

*Response:* IDEM agrees and will revise the rule language to merge the denial reasons together.

*Comment:* 327 IAC 19-7-2(b)(4). We oppose the requirement to provide the names of landowners of parcels where manure will be applied. Many parcels are under the control of a farm manager or tenant farmer under a long-term lease. The requirement does not provide environmental protection but does allow opponents of livestock production to easily target those individuals. The maps and field boundary information provide sufficient information for environmental decisions. (LPRRG)

*Response:* It is currently common practice for this information to be provided on maps submitted to the agency for CFOs and it is necessary for IDEM to be able to correlate land use agreements with the acreage being represented as available for land application.

*Comment:* 327 IAC 19-7-3(b) and (d). Under this subsection the farmstead plan must show the diversion of uncontaminated water. The rule's storm water management requirements require the CFO owner to implement storm water management practices but do not designate which practices must be used. The prescriptive requirement to document diversions is unwarranted. Storm water management issues should be addressed in 327 IAC 19-11. Identifying diversion of uncontaminated storm water on the farmstead plan for a CFO applying for a new permit is a new standard that allows IDEM personnel to understand the specific site that will be constructed and its potential effects on the environment. The storm water management requirements of the rule require the CFO owner to implement storm water management practices but do not designate what types of practices must be used. This documentation requirement is unwarranted and should be removed. All storm water management issues should be addressed under 327 IAC 19-11. (LPRRG)

*Response:* This is not a new requirement and has been required in the past under 327 IAC 16-7-9(b). Having this information on the Farmstead Plan helps in the development of storm water management practices.

*Comment:* 327 IAC 19-7-3(e). This subsection requires the farmstead plan to contain a reference to public roads. In subsection (a) there is a duplicative requirement that all public and private roads within 500 feet of waste management systems be included in the farmstead plan. (LPRRG)

*Response:* The purpose of this requirement was to provide a reference of where the structures are located relative to any roads in order to better understand the orientation of the facility. This requirement will be replaced with a requirement that true north be indicated on the Farmstead Plan so it may be correlated with the USGS map that already has true north indicated.

*Comment:* 327 IAC 19-7-5(c). The rule requires that a soil test provide sufficient information on soil fertility to allow for nutrient recommendations for nitrogen, phosphorus, potassium and lime. It does not directly state that a soil nitrogen test should be done and we do not believe it should be interpreted to require such a test since they are largely unreliable in Indiana. We also question the inclusion of potassium and lime in soil testing since levels of potassium and lime needed will not vary widely because of manure application and the rule does not require that certain levels be maintained. (LPRRG)

*Response:* IDEM agrees and will revise this provision.

*Comment:* 327 IAC 19-7-5(e). The language requiring manure sampling should be amended to state that a single manure sample may be used to represent multiple storage structures so long as the same production system is used for each facility. By using the same production system, the manure will be a consistent product and the nutrient value will be the same in each storage structure. (LPRRG)

*Response:* IDEM agrees and will revise the language.

*Comment:* 327 IAC 19-7-6(b)(1)(A). The language should be amended to state that the sites should be constructed and operated to “minimize” rather than “prevent” leachate. The rule should recognize that complete prevention is a difficult standard to achieve. (LPRRG)

*Response:* IDEM agrees that it is difficult to prevent leachate. The intent of the requirement is to prevent movement of leachate through the base of the structure. The term will be changed from “leachate” to “leaching”.

*Comment:* 327 IAC 19-7-6(b)(1)(B). The rule requires that a compost site be constructed and operated to prevent access by rodents and domestic and wild animals. The concern about removal of carcasses from the compost site is not a water quality issue. This language should be removed because the rules of the Board of Animal Health are similar and are being revised to clarify the requirements for structure security to prevent animal access. (LPRRG)

*Response:* Having animal carcasses removed from a contained area and deposited in the open environment can be both a public health and an environmental concern.

## **Approval Process**

*Comment:* 327 IAC 19-8-2. We agree with the five year length of an approval, but the approval as written will be a period at least 30 days shorter than five years because of the requirement to submit a renewal application at least 30 days before expiration and the provision that the renewal begins on the submittal date. The renewal should begin on the date the previous approval expires. (LPRRG)

*Response:* IDEM will modify the language to allow future renewals to be valid for a full five year term.

*Comment:* 327 IAC 19-8-2(c). A application for renewal includes a showing that the minimum number of acres are available for manure application. This should be amended to allow a showing that a smaller number of acres are needed as provided in 327 IAC 19-14-2(c). (LPRRG)

*Response:* IDEM will modify the rule to reference all of 327 IAC 19-14-2 which will include the demonstration of smaller acreage.

*Comment:* 327 IAC 19-8-4(a)(1). This subdivision should be revised to read “demonstrate that the CFO when constructed will be in compliance with approval conditions contained within this regulation; or...”. (LPRRG)

*Response:* IDEM will revise this section by incorporating 327 IAC 19-7-1(e).

*Comment:* 327 IAC 19-8-7. The time period for comment on an approval application should be shorter than 33 days. Comments are often upon issues which have no bearing upon whether the approval will be granted for a particular operation. The comments are often directed to issues outside of IDEM’s scope or issues that should have been challenged during this rulemaking. Livestock and poultry producers should not bear the brunt of delays and costs caused by a lack of understanding about agricultural practices and the regulatory system. The permitting process should not be used to delay approvals. (LPRRG)

*Response:* It is IDEM’s common practice to allow the public at least 30 days to comment on a proposed permit.

*Comment:* 327 IAC 19-8-7. We recognize IDEM’s concern that all required information be given owners and occupants of neighboring land and the county executive using the required form. We believe that applicants should be allowed to use their own letter or form so long as all required information is provided. The applicant is responsible for providing all the information and would not receive the approval if the information is not provided. (LPRRG)

*Response:* IDEM agrees and will revise the rule.

### **Operating Record**

*Comment:* 327 IAC 19-9-1. The property owner may not have the right to contract for manure application if a tenant farmer has authority for those decisions in a separate contract. It is more appropriate for the land use agreement to be between the livestock or poultry producer and the individual with authority to contract for manure application. If the land is rented, a land use agreement signed by the tenant farmer along with a memorandum of the land lease for crop production should be sufficient. (LPRRG)

*Response:* IDEM agrees and will revise the rule language.

### **Ground Water Monitoring**

*Comment:* 327 IAC 19-10-1. The conditions that trigger ground water monitoring are still unclear, and applicants should understand the conditions which may lead to additional requirements. The conditions which are most prevalent, such as specific geologic or design criteria, should be listed in the rule, or the provision should be explained in more detail in a guidance document. (LPRRG)

*Response:* Because every facility is unique in its design and geologic setting it is difficult to provide very much specificity in the rule. From a historical perspective less than 1% of the currently permitted CFOs and CAFOs have been required to establish ground water monitoring. The situations where monitoring has been required involved large earthen lagoons that were located in permeable soils, or in close proximity to an aquifer formation that was being utilized in the area.



*Comment:* 327 IAC 19-10-1. The list of ground water monitoring constituents is excessive. If monitoring is necessary, a small subset of the list could be used as indicators to determine if further testing is necessary. The benefit of testing will not outweigh cost of testing to the farmer. (LPRRG)

*Response:* The cost to run the parameters listed, on one sample, is approximately \$170. The analysis cost for 5 monitoring wells would be less than \$1,000. IDEM does not believe such a cost is excessive when it is associated with a situation that warrants the installation of monitoring wells due to concerns with protecting ground water resources.

*Comment:* 327 IAC 19-10-1. The presence of a listed criteria in a test does not mean that a manure storage structure is the source, and does not necessarily mean that human health or the environment are in jeopardy or that corrective actions need to be taken. (LPRRG)

*Response:* IDEM agrees with this statement and considers the purpose of the ground water monitoring to be an early warning system that triggers the need for further evaluation to identify the source of contamination.

*Comment:* 327 IAC 19-10-1. Sufficient data does not exist for farmers to be able to determine whether any changes are statistically significant. Guidance is needed to address this issue. Test results should be submitted to IDEM within 60 days and IDEM should determine if there is a statistically significant increase. (LPRRG)

*Response:* Determining the most appropriate type of statistical testing is a function of the number of sample points available. IDEM will provide guidance on choosing statistical tests. Results of running the statistical test may dictate the need for re-sampling or additional testing and it is best that the farmer be in control of making those determinations.

*Comment:* 327 IAC 19-10-1. If the farmer is responsible for determining a statistically significant increase, the results should only be submitted to IDEM if there is a statistically significant increase. If there is not, no information should be submitted to IDEM, including the test results, which should be kept on the farm as part of the operating record. (LPRRG)

*Response:* IDEM disagrees.

## **Storm Water Management**

*Comment:* 327 IAC 19-11-1. EPA does not refer to “storm water pollution prevention plans” in 40 CFR 122.23. Use of this Indiana-specific term could lead to confusion. The reference to 40 CFR 122.23(e) must include all requirements which could be considered by EPA to include provisions for managing storm water. (LPRRG)

*Response:* IDEM is amending this section to clarify the references to the federal rules.

*Comment:* 327 IAC 19-11-2(a)(2). The recommendations for storm water management practices are vague. IDEM should develop guidance to assist farmers in determining which practices are available and what may work best for their operation. The phrase “immediate access roads and rail lines” should be clarified. We suggest restricting the provision to “immediate access roads and rail lines at the CFO.” (LPRRG)

*Response:* IDEM will amend existing guidance to reflect the new rule requirements and give examples of situations and practices that can be adapted for various operations. We also agree with referencing roads and rail lines at the CFO.

*Comment:* 327 IAC 19-11-3. The storm water management requirements should be used to control real pollution issues such as contamination of storm water by contact with manure from animal handling areas, not to situations like small amounts of spilled grain or feed. (LPRRG)

*Response:* The rule is written to require consideration of all pollutant sources, even those some may consider insignificant. As the rule is written to apply to all variety of situations, it cannot list each situation that may arise as a possible pollutant concern. Guidance will be amended to provide examples and better explain options for stormwater management for different types of facilities.

### **Manure Handling and Storage, Site, Design, and Construction Requirements for Waste Management Systems**

*Comment:* 327 IAC 19-12-2. The complete prohibition on construction over mines is unwarranted. The rule should contain a provision for construction over mines that is similar to that for construction in karst terrain. Solid manure structures should be allowed to be constructed over mines. (LPRRG)

*Response:* This is a long-standing restriction in the CFO rules. However, the alternate design section of the rule, 327 IAC 19-5-1 would allow innovative design approaches to be considered and possibly approved.

*Comment:* 327 IAC 19-12-3(b). The 300 foot setback from “surface waters” could be applied to puddles, swales and private ponds with no discharge to waters of the state. The setback should not apply to those features. (LPRRG)

*Response:* As this long-standing setback requirement to surface waters has never been interpreted to include puddles, IDEM believes this concern is not warranted. The setback is designed to protect Indiana’s waters, which are already sufficiently defined in rule and statute. See the response to the comment on the definition of “surface waters” in 327 IAC 19-2-42.

*Comment:* 327 IAC 19-12-3(c). We believe this subsection requires manure storage structures holding solid manure to maintain a 100 foot minimum setback. By using the phrase “contains solids”, the language could be read to mean liquid manure which contains solids. (LPRRG)

*Response:* IDEM agrees and will modify the language to clarify the intent of the section.

*Comment:* 327 IAC 19-12-4(d). The requirement to have a professional engineer certify all manure storage facilities is overly burdensome and costly. This provision may be appropriate for a facility that requires a liner, but it is unnecessary for the majority of structures. The design and construction of the majority of facilities are similar or identical, the materials are predictable and the contractors are familiar with the structures. IDEM staff can review each structure before it is placed in service. Since few professional engineers would certify a facility without also designing it, having a professional engineer design the facility becomes a requirement of the rule. (LPRRG)

*Response:* IDEM believes that a certification of proper construction is essential in assuring that facilities are constructed as designed. IDEM does not have staff to inspect each manure storage facility before it is put into service and requiring facilities to wait for such an on-site inspection would prove

more burdensome and costly to owners and operators. Because adherence to design and construction standards is vitally important in the proper operation of a CFO, IDEM believes this requirement is an important method to assure long-term environmental protection.

*Comment:* 327 IAC 19-12-4(e). We are concerned that TR-9: Circular Concrete Manure Tanks, March 1998, is an outdated technical resource. It should be replaced with "Circular Concrete Tanks Without Prestressing," ISBN 0-89312-125-8, Portland Cement Association, 1993. (LPRRG)

*Response:* The rule references MWPS-36 for rectangular concrete structures, and TR-9 for circular concrete structures is a companion document that is cross-referenced with MWPS-36. For consistency reasons IDEM believes that the TR-9 is an appropriate reference to use.

*Comment:* 327 IAC 19-12-4(f). Because not all earthen manure storage structures are lagoons, the phrase "constructed with the intent to treat manure" should be inserted between the words "facilities must". (LPRRG)

*Response:* The rule language will be changed to clarify that the reference is to lagoons.

*Comment:* 327 IAC 19-12-4(g). We question the restriction of constructing manure storage facilities that contain solids in sand and gravel soils. Why was this included and what does it mean? (LPRRG)

*Response:* This subsection will be clarified to refer to manure storage facilities that contain solid manure.

*Comment:* 327 IAC 19-12-4(i). NRCS Conservation Practice Standard Code 634: Waste Transfer, October 2010, should be substituted for NRCS Conservation Practice Standard Code 516: Pipeline. The pipeline publication is for the movement of clean water. (LPRRG)

*Response:* This reference will be changed.

*Comment:* 327 IAC 19-12-4(k)(3). The requirement to clean tanks which have been used to store other substances prior to use for manure storage is excessive in some circumstances. If the tank had been previously used to store hazardous substances, traces of the prior substance would need to be removed. However, if the tank previously held a substance similar to manure, such as fertilizer, there is no threat to human health or the environment being created by failing to remove all traces of the substance. This provision should be rewritten to generally require that tanks be cleaned so that hazardous substances are removed prior to addition of manure to the tank. (LPRRG)

*Response:* IDEM agrees and will amend the subsection to clarify.

*Comment:* 327 IAC 19-12-4(l). Vegetative infiltration basins should be authorized by this rule. If they are not included in Practice Standard Code 635, a separate technical resource should be referenced. (LPRRG)

*Response:* Any management system not specifically authorized by incorporated standards may still be used so long as it can be shown to the satisfaction of the commissioner to meet all requisite performance standards and be protective of the environment.

*Comment:* 327 IAC 19-12-4(o)(3). The requirement for a backup pump is unnecessary as long as the operator has access to a separate pump that can be used if the primary pump fails. (LPRRG)

*Response:* A backup pump is not specifically required by that subdivision as the wording states these must be provided "if applicable".

*Comment:* 327 IAC 19-12-4(o). While we recognize that the outlet of groundwater should not be done in a manner to impact adjacent property owners, the restriction that an outlet must be either twenty or fifty feet from a property line may be excessive if the water can be safely placed into a ditch or creek which is within the setback and will carry the water away. The setback from property lines should not exist if the adjoining property is owned by the owner/operator of the CFO. (LPRRG)

*Response:* IDEM agrees and will amend that section to allow for waived setbacks if the adjoining property is owned or operated by the CFO.

*Comment:* 327 IAC 19-12-4(s). We do not believe that the current version of this rule requires that an affidavit announcing completion of construction of the manure management system be notarized. However, we are under the *impression* that the form which IDEM requires does have such a requirement. Why is the use of a notary required in subsection (s)? Legal documents are often submitted under penalty of perjury without the requirement that the document be notarized. There is no value to be gained by seeking the signature of a notary but there is increased cost and time involved in doing so. (LPRRG)

*Response:* It is a long-standing agency-wide practice requirement to require all affidavits to be notarized. To date IDEM has not received complaints regarding this being an undue burden on the applicant.

*Comment:* 327 IAC 19-12-5. The rule would read more clearly if the requirement that clay liners be a minimum of one foot thick contained in (c) was instead included in (b). The provision regarding clay liners should not be treated as an exception to the technical references in (b) but as an additional method of sealing which may be implemented. (LPRRG)

*Response:* IDEM agrees that the language could be clearer to reflect that a variety of liners may be used to meet the requirements of the section and will amend the section to make it read more clearly.

*Comment:* 327 IAC 19-13-2. The General Assembly has established a program for regulation of digesters and gasifiers that use agricultural sources of biomass (HEA 1187). Under HEA 1187, digesters and gasifiers using only biomass as the source of energy should no longer be regulated under the solid waste program. Because the digester or gasifier will be part of the manure management system at a CFO, its design, construction and operation will be subject to approval of IDEM under the CFO program. (LPRRG)

*Response:* IDEM agrees and will amend the language to bring the rule into agreement with the provisions of HEA 1187 that become effective on July 1 of this year.

### **Emergency Response Plan**

*Comment:* 327 IAC 19-13-4. It is necessary to define “manure release” as it is a new term and has been used to largely replace “spill” when discussing emergency response plans. (LPRRG)

*Response:* The intention was to use the term “manure release” to refer to manure that has escaped from a storage structure or piece of equipment but has not yet reached a water of the state. Once a manure release reaches a water of the state it would be considered to be a “spill”. While the requirements of the existing spill rule would apply to a CFO, a manure release is more reflective of the actual operations at a CFO. The terms are commonly defined and no additional definitional clarification should be necessary.

## **Land Application of Manure: General**

*Comment:* 327 IAC 19-14-3. IDEM should work with Purdue University with respect to nitrogen recommendations for crop production and reasonable nitrogen losses to ensure that the information being used is based upon current scientific information. By providing better clarity and developing current materials, farmers who are applying manure and the agency staff will be able to interpret this provision in the same manner. (LPRRG) (JS)

*Response:* IDEM has worked with Purdue and interested producers to develop the land application table currently in the rule. In fact the suggestion for such a table came from commentators, including NRCS and Purdue. There is an allowance for nutrient losses under 327 IAC 19-14-3(b).

*Comment:* 327 IAC 19-14-3(c). IDEM should use the updated March 2008 version of AWMFH Chapter 4. (LPRRG)

*Response:* This reference will be updated.

*Comment:* 327 IAC 19-14-3. The rule does not allow for a demonstration of soil loss below the allowable T when the soil test level is between 200 and 300 ppm in year seven and beyond. By allowing for this showing, farmers can demonstrate that an application of phosphorus will still be protective of the environment. (LPRRG)

*Response:* Neither the current rule nor the proposed rule allow for site risk considerations in determining the application of phosphorus to a field with high phosphorus levels.

*Comment:* 327 IAC 19-14-3, Table 2. We also suggest, for the clarity of those following the rule, that the year references in Table 2 be indicated by actual calendar years. As an example, assuming that this rule becomes effective at the end of 2011, the first column for application years would read "2012-2013." This would eliminate the guesswork of which year in the chart is to be followed. (LPRRG)

*Response:* IDEM will review the chart and make a determination whether adding actual calendar years would be more useful for those using the chart.

*Comment:* 327 IAC 19-14-4(b)(3). Staging of manure in a flood plain can be protective of human health and the environment so long as certain factors are considered. A landowner should be able to stage manure for a limited period of time in a flood plain if conditions such as weather forecasts, river levels, and recent rainfall for both the application location and upstream watersheds are considered. (LPRRG)

*Response:* An allowance for short-term staging in a flood plain will be added.

*Comment:* 327 IAC 19-14-4(c). The restriction in 19-14-4(c) that manure, litter or bedding cannot be placed outside over night is unwarranted. It may take more than one day to clean out a large building, and leaving the material outside over night does not create an environmental risk. Inclement weather is a legitimate concern to which this restriction should be limited. (LPRRG)

*Response:* IDEM will review the provision and determine whether a specific time-frame, such as a number of hours might be more of a functional restriction. In no case should manure or contaminated materials be placed outside in inclement weather or during the threat of inclement weather.

*Comment:* 327 IAC 19-14-4(l). The exclusion from enforcement for pollution events caused by storm water or irrigation return flows found in (l) does not match the language found in HEA 1187. Given that the General Assembly has spoken to the issue, we believe that the language should be identical. (LPRRG)

*Response:* As HEA 1187 was in its formative stages when this draft of the rule was completed, IDEM intends to amend the rule to make it conform to the requirements of HEA 1187, which becomes effective on July 1 of this year.

*Comment:* 327 IAC 19-14-5. In the response to previous comments regarding the spray irrigation of manure, IDEM stated that so long as spray irrigation is conducted to prevent excessive application, occasional ponding and slow infiltration should not rise to the level of a violation. We agree with this statement. Nevertheless, we are concerned that an inspector could interpret the regulation in such a way that a livestock or poultry producer could be found to be in violation of this provision even though the ponding is occasional and the infiltration occurring slowly. (LPRRG)

*Response:* Inspectors will be provided with ample information on the rule requirements that such interpretations should not occur. Additionally, it is not solely the inspector who determines what purported violations are sent through the enforcement process, therefore the judgment of a single person would not determine such a violation.

*Comment:* 327 IAC 19-14-5(d)(3). The requirements in (d)(3) are sufficient to protect human health and the environment when spray irrigation is done in a flood plain. Since they take into account the expectation of flooding, there is no reason to determine whether the NRCS soil data mart indicates that there is a low potential for flooding. Trends are less reliable than real time data. (LPRRG)

*Response:* IDEM believes that the unique nature of floodplains makes it especially important that spray irrigation be done in a manner that assures protection from potential flooding. To that end the NRCS soil data mart is a good tool to aid in that assessment.

*Comment:* 327 IAC 19-14-6. There are several references made to surface waters of the state in the manure application setbacks. As we previously commented, “surface waters” is an overly broad and somewhat ambiguous regulatory term. (LPRRG)

*Response:* This is a long-standing definition, the primary purpose of which was to draw a distinction between surface waters and ground water, especially in relation to setbacks. IDEM has never interpreted the definition of surface waters to extend beyond the statutory definition of waters. However, if a private pond has a hydraulic connection to any water of the state and a discharge into the private pond leads to a discharge to a regulated water, IDEM can certainly enforce against such a violation.

*Comment:* 327 IAC 19-14-7(d). Reference is made to two certifications which must be obtained prior to receiving manure from a CFO. The first is a nutrient application certification and the second are all applicable certifications from the Office of the State Chemist. We are aware of only one certification, the fertilizer material applicator certification from the Office of the State Chemist. The provision needs to be rewritten to clarify that only one certification is required or it needs to more clearly state what the required certifications are and where they may be obtained. (LPRRG)

*Response:* As written, the rule specifies that any certifications necessary from the OSC must be obtained. If only one certification is necessary then the parameters of the rule are met. The rule serves

as a reminder that the office of state chemist regulates the application of fertilizer, including manure, onto the land in Indiana. Anyone applying fertilizer or manure should be aware of the requirements from the OSC and should read those requirements independently from this rule.

*Comment:* 327 IAC 19-14-7(f). The proposed regulation requires that in order to receive the waiver of land acreage requirements, certain records must be provided including the amount of manure produced, the amount marketed by the facility, and the amount that was land applied. Given that some of the marketing agreements may not be based upon past marketing practices, the provision should be rephrased to state that it includes projected amounts of manure produced, manure marketed, and manure to be land applied. (LPRRG)

*Response:* IDEM will clarify the waiver conditions.

*Comment:* 327 IAC 19-14-7(f). There is some question of the scope of the phrase “that was land applied.” Is this seeking to obtain information about the amount of manure applied to land under the control of the CFO, or is it seeking to find how much of the marketed manure was land applied? It is possible that marketed manure may not be land applied if it is used in a digester or gasifier. Further, some manure may be pelletized and enter the market as turf fertilizer. The critical concern is that if the amount of manure land applied and amount marketed are to equal the total produced, the provision must be clear in explaining the land application information which is needed. (LPRRG)

*Response:* IDEM agrees that the language should be clarified to reflect the amount of manure that was land applied by the CFO or under the control of the CFO. The owner operator is only responsible for meeting the requirements for marketed manure found in the rule. 327 IAC 19-14-2(c) allows additional flexibility.

*Comment:* 327 IAC 19-14-4(b)(3). Challenges are raised by the strict setback requirements from all waters especially in (b)(3) where there is a prohibition on staging manure in standing water. On nearly level fields in which the water ponds rather than flows away during rain events, it is possible that standing water may accumulate in the area where the manure is staged. That should not be treated as a violation so long as waters of the state are not polluted. (LPRRG)

*Response:* Generally the topography of land is such that areas where water accumulates are readily apparent. These areas should be avoided when staging manure.

#### **Application to Frozen or Snow-Covered Ground**

*Comment:* 327 IAC 19-14-4. We are extremely concerned about the restriction on application of manure on frozen and snow covered ground. For many operations that were permitted with less than 180 days storage, application to frozen and snow covered ground is a necessity. While we agree that application may be needed because of natural disasters, extreme weather conditions, or equipment or structural failure, the need to apply because of the size of approved manure storage structures should not be discounted. We acknowledge the provision in (i), which is consistent with the information we have received from EPA, that the restrictions do not apply if injection or same day incorporation can be achieved. However, we do not believe that this provision sufficiently addresses the needs of those operations which were constructed according to the rules in place when they were approved. Those facilities are older facilities where construction of new manure storage structures is not likely an

economically feasible venture. Requiring additional storage could result in many of those operations closing, impacting the farmers who raise the livestock and poultry at those farms. (LPRRG)

*Response:* IDEM agrees that operations with approved storage of 120 days or less may have difficulty meeting the winter-time restrictions in the rule. IDEM will amend the language to allow the commissioner to approve land application on a case-by case basis for those operations not defined as large CAFOS that have less than 120 days of storage. The approval would be available as long as the farm continues to operate as permitted and does not cause a discharge of manure to waters of the State.

*Comment:* 327 IAC 19-14-4. A key consideration for our belief that applications to frozen and snow covered ground should not be entirely restricted to emergency situations is the concession that conditions should be in place. We support the conditions listed in (h)(3). Those provisions will ensure that human health and the environment are protected regardless of the reasons for the application to frozen or snow covered ground. Historically, there has not been a problem caused by application to frozen and snow covered ground in Indiana. Those states where incidents have occurred are our neighbors to the north where the soil freezes to extreme depths rather than in the vast majority of Indiana where we have frequent freeze and thaw cycles. With these frequent cycles, the risk that the ground will freeze to substantial depths such that a manure run-off event will occur is minimal at best. Thus, we suggest that CFOs be allowed to apply manure to frozen and snow covered ground so long as they follow the guidelines in (h)(3). (LPRRG)

*Response:* IDEM believes that sufficient flexibility has been built into the rule to allow operations to plan around the restrictions on winter-time spreading. An emergency provision as well as a case by case approval for operations with approved storage capacity of 120 days or less has been added to the draft rules to aid operations having difficulty meeting the requirements of the rule.

*Comment:* 327 IAC 19-14-4. Allowance should be made for grandfathering of those facilities which were constructed under previous versions of the rule and who do not have adequate storage capacity to ensure that they can make it through the winter without some application to frozen and snow covered ground. Facilities with adequate available storage would still be subject to the emergency application provisions, but those facilities who cannot get through the winter because of their storage capacity would be allowed to make minimal applications to maintain adequate storage capacity. (LPRRG)

*Response:* IDEM agrees that operations with approved storage of 120 days or less may have difficulty meeting the winter-time restrictions in the rule. IDEM will amend the language to allow the commissioner to temporarily approve land application on a case-by case basis for those operations not defined as large CAFOS that have less than 120 days of storage. The approval would be available as long as the farm continues to operate as permitted and does not cause a discharge of manure to waters of the State.

*Comment:* 327 IAC 19-14-4. If this section is not changed, we urge IDEM as well the Governor and other agencies to provide financial assistance to the farmers who are forced to build additional storage. Without the financial assistance, there will likely be a financial hardship which they will not be able to overcome. (LPRRG)

*Response:* IDEM will revise the requirements as described in the previous comment.



*Comment:* 327 IAC 19-14-4(e). In (e), there is a general prohibition on large CAFOs from the application of manure to frozen and snow covered ground. The CAFO NPDES rule at the federal level does not specifically prohibit application by large CAFOs. Rather, guidance which has been issued by the EPA states that application to frozen and snow covered ground is prohibited. Additionally, the guidance states that applications will be allowed on an emergency basis, although an individual will be found to be in violation of their NPDES approval. We do not agree with the interpretation of EPA that every application to frozen and snow covered ground automatically results in a discharge to waters of the US. Thus, we believe that the interpretation of EPA is inappropriate and legally challengeable. That being said, we believe that the provision found in (i) which states that the restriction on application to frozen and snow covered ground does not apply if injection or same day incorporation can be achieved should also apply to large CAFOs. This is consistent with information we have received from staff at Region 5 EPA. (LPRRG)

*Response:* IDEM cannot speak to EPA interpretations of federal rules. This requirement merely repeats what the federal rule states. CFOs defined as large CAFOs under the federal rule that have a discharge from such an application may be required to obtain a NPDES permit. IDEM will add a clarification that the restriction on application to snow covered or frozen ground does not apply if the manure can be injected or incorporated the same day.

### **Phosphorus Based Manure Application Limits**

*Comment:* 327 IAC 19-14-3. We are concerned that large CAFOs who currently have CFO approvals not be required to apply manure according to Table 1 but that they be given the opportunity to follow the phase-in approach provided in Table 2. This group of CAFOs does not currently have to apply manure with phosphorus as a limiting nutrient, and we believe that a phase-in period will allow them the opportunity to transition into this more stringent requirement. (LPRRG)

*Response:* CAFOs built after 2003 are already subject to phosphorus limitations through their CAFO permit. IDEM estimates that there are approximately 150 such farms. The remaining approximately 450 farms have not been subject to a phosphorus limitation and IDEM agrees with allowing those farms to phase into the phosphorous limitations in Table 2. The rule will be revised to reflect this change.

*Comment:* 327 IAC 19-14-3. We are concerned because the rule does not specifically acknowledge the necessity and viability of applying multiple years' worth of phosphorus in one application. It is clear based upon the table in the rule that when the soil test levels are 50 ppm or below, there is no restriction. Outside of that initial level, there is no reason why multiple years' worth of phosphorus could not be applied in a manner that is protective of the environment. Given the nutrient content of manure, nitrogen will generally limit the amount of phosphorus to the amount needed over a period of three to four years. Once an application is made, subsequent applications could be restricted until the phosphorus which has been applied is utilized. Without this allowance, it will not be economically viable to apply manure. Nitrogen rates would be so low that subsequent applications of nitrogen would have to be made to the same field, taking away the ability to meet annual nitrogen demands with one application which increases cost of production, compaction, and disturbance to the soil. (LPRRG)

*Response:* IDEM acknowledges that banking of phosphorus has some environmental benefits as the manure may be spread on a fourth of the land area required if banking were not allowed. Therefore

reducing air emissions from application equipment and reducing the surface area subject to runoff during rain events. In light of these benefits IDEM is open to additional consideration for allowance of some banking under the rule. Documentation in on-site records, additional soil testing or restrictions of banking to fields that meet a specific risk assessment are all considerations that may accompany an allowance for banking. There is an allowance for nutrient losses under 327 IAC 19-14-3(b).

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